

Notice of Allowability

Application No.

10/715,466

Examiner

Curtis B. Odom

Applicant(s)

NAITO, TAKAHIRO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt filed on 8/30/07.
2. ☒ The allowed claim(s) is/are 2-4, 8-10 and 12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Clyde R. Christofferson on September 12, 2007.

The application has been amended as follows:

In claim 3, line 7, the phrase "mod2" is changed to "modulo 2".

In claim 3, line 14, the phrase "Hadamardtransformed" is changed to "Hadamard transformed".

In claim 5, line 15, the phrase "TFCIdecoding" is changed to "TFCI decoding".

EXAMINER'S STATEMENTS OF REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: Claims 2-4, 8-10, and 12 are allowable over prior art references because related references do not disclose TFCI decoding comprising dedicated channel control means for controlling a dedicated channel, outputting a TFCI count corresponding to a service, and outputting a decoding parameter corresponding to a received TFCI value, data correcting means for processing a correction value calculated from TFCI decoding characteristics of a

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dedicated physical control channel with respect to data on a dedicated physical data channel which is received from a mobile unit, de-interleave rate de-matching means for channel-decoding an output from the data correcting means on the basis of a decoding parameter from the dedicated channel control means, and error correcting/decoding means for decoding an output from the deinterleave rate dematching means while performing error correction for the output to obtain decoded data on the dedicated physical data channel, and the dedicated physical data channel correcting means comprises symbol data determining means for extracting/separating a TFCI code from data on a dedicated physical control channel, soft decision TFCI decoding means for TFCI decoding a TFCI code output from the symbol data determining means on the basis of a TFCI count from the dedicated channel control means, transmitting an obtained TFCI value to the dedicated channel control means, and outputting correlation values with a Walsh quadrature vector at the time of TFCI decoding, correlation value characteristic storage means for sequentially storing correlation values output from the soft decision TFCI decoding means, and correction value calculating means for determining TFCI decoding characteristics from a plurality of correlation values stored in the correlation value characteristic storage means, calculating the correction value, and outputting the correction value to the data correcting means. Furthermore related references do not disclose TFCI decoding comprising the step of extracting/separating a TFCI code from received data on a dedicated physical control channel, the step of TFCI decoding the TFCI code, obtaining correlation values with a Walsh quadrature vector, and sequentially storing the correlation values, the step of determining TFCI decoding characteristics from a plurality of stored correlation values, the step of calculating a

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correction value for data correction on the dedicated physical data channel, the step of changing a data order of a reception TFCI code to allow the code to be subjected to fast Hadamard transform as a Walsh quadrature vector, the step of calculating a correlation between the TFCI code after interchanging and a preset code table of 16 combinations of mask codes in a TFCI code which are obtained by modulo 2 addition, and performing fast Hadamard transform, and the step of determining an absolute peak value of Hadamard transformed data, performing positive/negative determination on the peak value, and determining an index thereof to obtain correlation values with a Walsh quadrature vector at the time of the TFCI decoding.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

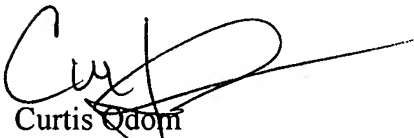
Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Curtis Odom
September 13, 2007